

Original Article

Surgical Complications of Cholecystectomy among Patients: A Clinical Study

R B Singh¹, Pankaj Kumar Mishra²

¹Medical Superintendent and Assistant Professor, Surgery, ²Professor, Community medicine, Mayo Institute of Medical Sciences, Barabanki, U.P., India

ABSTRACT

Background: Cholelithiasis is a common disease, typically occurring between 30 and 60 years of age. Among the disorders of the urinary tract, gall bladder stones are a major cause of morbidity. This study was conducted to estimate the post operative complications of cholecystectomy in study population. **Materials & Methods:** This study was conducted in the Department of General Surgery. 140 patients treated for gall bladder diseases and cholelithiasis was investigated. Patient's data such as name, age, gender etc. was retrieved from case history performa. Any complications found post operatively were recorded. **Results:** Out of 140 subjects, males were 30 and females were 110. The difference among patients was non significant. Age group 20-40 years consisted of 5 males and 50 females. Age group 40-60 years had 18 males and 42 females. 07 males and 18 females were more than 60 years of age. The difference was significant (P-0.01). The most common complication was adhesions (53) followed by bleeding (32), empyema (20), mucocele (15), anomaly of biliary system (10) CBD (5), bowel injury (4) and difficult calot's triangle (1). The difference was significant (P-0.01). Wound infections was seen in 35 patients. Other was jaundice (10), biliary fistula (2), nausea/vomiting (15), biliary strictures (6) and incisional hernia (3). The difference was significant (P-0.02). **Conclusion:** Gall bladder diseases are commonly seen among young and middle age group. It is the disease of women around 40 years age. Gall stones are common findings. Common intraoperative findings are adhesions, bleeding, empyema, mucocele, anomaly of biliary tree.

Key words: Adhesions Cholecystectomy, Gall bladder.

Corresponding author: Dr. Pankaj Kumar Mishra, Professor, Community medicine, Mayo Institute of Medical Sciences, Barabanki, U.P., India

This article may be cited as: Singh RB, Mishra PK. Surgical Complications of Cholecystectomy among Patients: A Clinical Study. J Adv Med Dent Sci Res 2018;6(3):37-40.

INTRODUCTION

Cholelithiasis is a common disease, typically occurring between 30 and 60 years of age. Important geographical and racial variations have been observed by several workers in the incidence of cholelithiasis in various parts of the world.¹

The incidence is more in women as compared to men with high prevalence among younger age group. Most of the cases remain asymptomatic and hence undiagnosed. So the exact prevalence becomes difficult. The traditional risk factors for gallstone disease (GSD) are the four 'F's'- 'female, fat, forty and fertile' -but age is additional risk factors in western countries.²

A precise knowledge of the prevalence of stone disease in the general population should be very important for obtaining a precise figure of the incidence of the disease, which unfortunately is based on only very rough estimates,

a better understanding of the relationship between environmental and dietary factors and the stone disease and the exact estimation of social and medical costs of the disease.³

Nowadays, laproscopic cholecystectomy is the treatment of choice for cholelithiasis.

Injuries during the laparoscopic cholecystectomy can be prevented by precise operative technique, clear visualisation of anatomical landmarks, and careful dissection of tissues. Intraoperative cholangiography should be used in case of a dilemma.³⁻⁶

Sometimes even after removal of gall bladder some complications arise. The complications associated with gallstone disease (GSD) such as cholecystitis, pancreatitis, and cholangitis are major public health issues globally.⁴ This study was conducted to estimate the post operative complication of cholecystomy in study population.

MATERIALS & METHODS

This study was conducted in the department of general surgery. 140 patients treated for gall bladder diseases and cholelithiasis was investigated. Patient's data such as name,

age, gender etc. was retrieved from case history performa. Any complication found post operatively was recorded. Results thus obtained were subjected to statistical analysis using chi-square test. P value < 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Male	Female	P value
30	110	0.5

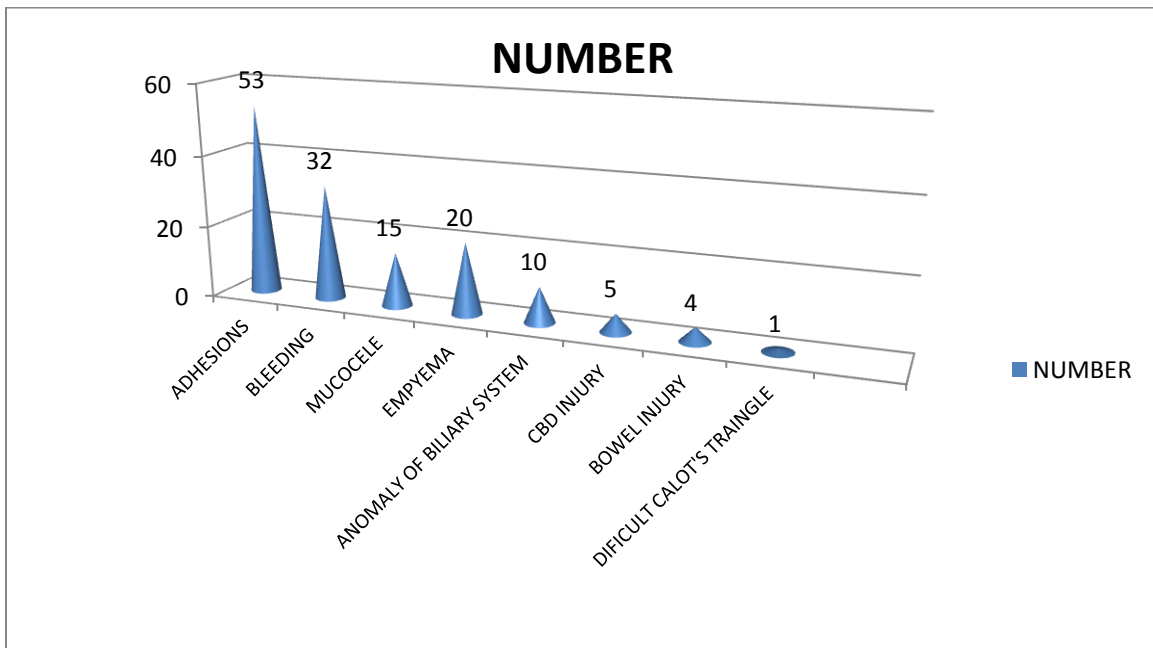
Out of 140 subjects, males were 30 and females were 110. The difference among patients was non-significant (Table I).

Table II Distribution of patients according to age groups

Age groups	Male	Female	Total	Percentage	P value
20-40	5	50	55	35%	0.01
40-60	18	42	60	40%	
>60	07	18	25	25%	
TOTAL	30	110	140	100	

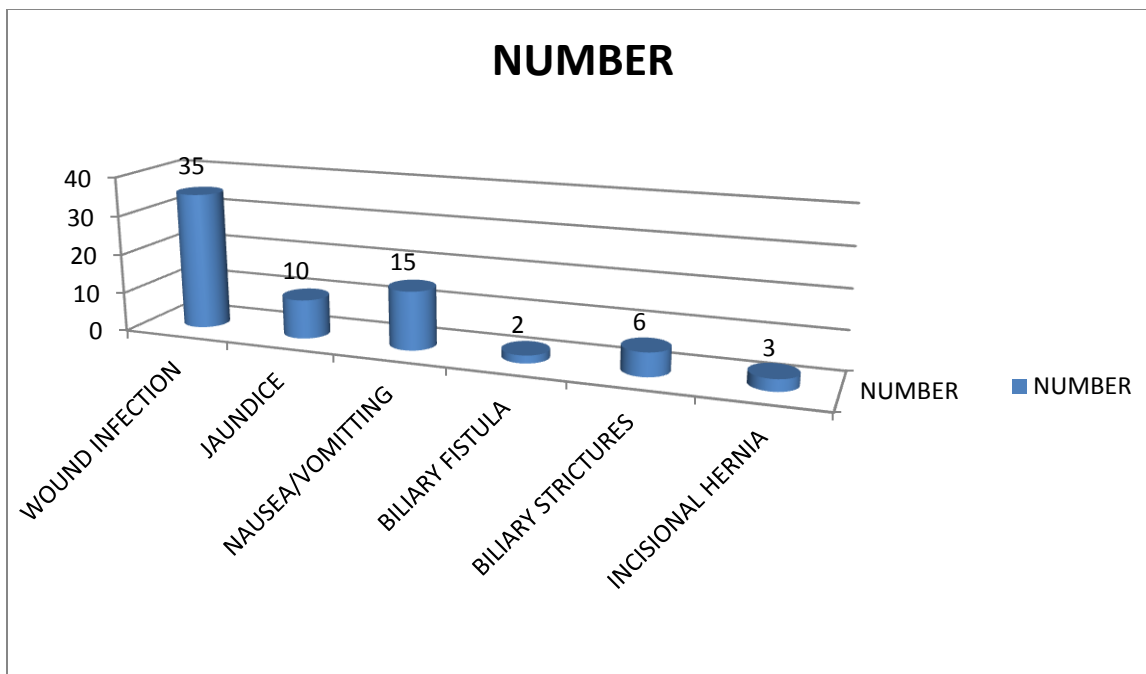
Table II shows that age group 20-40 years consisted of 5 males and 50 females. Age group 40-60 years had 18 males and 42 females. Seven males and 18 females were more than 60 years of age. The difference was significant (P-0.01).

Graph I Intraoperative findings in patients



Graph I shows that most common complication was adhesions (53) followed by bleeding (32), empyema (20), mucocele (15), anomaly of biliary system (10) CBD (5), bowel injury (4) and difficult calot's triangle (1). The difference was significant (P-0.01).

Graph II Post operative complications



Graph II shows that wound infections was seen in 35 patients. Other was jaundice (30), biliary fistula (12), nausea/vomiting (25), biliary strictures (16) and incisional hernia (6). The difference was significant (P-0.02).

DISCUSSION

Gallstones (GS) are seen in all age groups but the incidence increases with every decade of life and they were found to be most prevalent in 4th and 5th decade of life. Twenty to thirty percent of western people aged 65 and around 10% of non-western population same ages have been affected by gallstones. GD is one of the most common abdominal conditions for which patients are admitted to hospitals in developed countries. GD is a very common gastrointestinal disorder mainly in the Western world; although this disease as a low mortality rate, it's economic and health impact is significant due to its high morbidity. GD is one of the most common abdominal conditions for which patients are admitted to hospitals in developed countries.⁵

Laparoscopic cholecystectomy became the preferred method for the treatment of symptomatic cholelithiasis. It has many advantages over the standard open cholecystectomy: minimal trauma, decreased pain, shorter hospital stay, satisfactory cosmetic outcome, quick recovery, and return to work. However, numerous studies have shown this that laparoscopic cholecystectomy is associated with a higher frequency of complications compared to the standard open cholecystectomy including lesions to the common bile duct, injury to the vascular and visceral structures during the application of a Veress needle, and a trocar with fatal outcomes.²⁻⁶

In this study, we evaluated the post operative complications of patients who underwent cholecystectomy. This study

consisted of 140 subjects, males (60) and females (80) who found one or more complications following cholelithiasis. The prevalence was more for females as compared to males. This is in agreement with Ansari-Moghaddam et al.³

We found that Age group 20-40 years consisted of 5 males and 50 females. Age group 40-60 years had 18 males and 42 females. 07 males and 18 females were more than 60 years of age. David et al⁷ in his study found that as age advances there is increase in cholesterol secretion in the body leading to increase GD. Common intraoperative findings was adhesions, bleeding, empyema, mucocele, anomaly of biliary system, bowel injury and difficult calot's triangle. Our results are in agreement to the study done by Gnnamet al.⁸

In present study most common post operative complication was wound infection. Surgical wound infection is a complication that occurs with higher frequency in open cholecystectomy compared to laparoscopic cholecystectomy. Boni et al.⁹ reported that incisional complications were less commonly encountered in laparoscopic cholecystectomies compared to open cholecystectomies (mean 1.1% vs. 4.0%).

Other common post operative complications were jaundice, biliary fistula, nausea/vomiting, biliary strictures and incisional hernia. However Juoo¹⁰ found nausea/ vomiting as major complication while Juoo¹⁰ found jaundice as main complication in study group.

CONCLUSION

Gall bladder diseases are commonly seen among young and middle age group predominantly. Major biliary and vascular complications are life threatening, while minor complications cause patient discomfort and prolongation of the hospital stay.

REFERENCES

1. Abu-Eshy, S. A., Mahfouz, A. A., Badr, A., El Gamal, M. N., Al-Shehri, M. Y., Salati, M. I., & Rabie, M. E.. Prevalence and risk factors of gallstone disease in high altitude Saudi population. *East Mediterr Health J*, 2007;13: 794-802.
2. Kozoll, D. D., Dwyer, G., and Meyer, K. A. Pathologic correlation of gall-stones: a review of 1847 autopsies of patients with gall stones. *Arch. Surg.*1959; 79: 514-536.
3. Ansari-Moghaddam, A., Khorram, A., Miri-Bonjar, M., Mohammadi, M., & Hossein Ansari, H. The Prevalence and Risk Factors of Gallstone Among Adults in South-East of Iran: A Population-Based Study. *Global Journal of Health Science*.2016; 8: 60-67.
4. Duca., Chen, M. Y. M., Ott, D. J., Wolfman, N. T., & Routh, W. D. Gallbladder stones: Imaging and intervention. *Radiographs*. 2004; 20: 751-766.
5. Torvik, A., and Hoivik. Gallstones in an autopsy series. *Actachir. scand.*1960; 120: 168-174.
6. Bhasin and Dochat, G. R. Pregnancy and gallstones: collective review. *Int. Obstet. Surg.* 1944; 78: 193-204.
7. David et al. The composition of gallstones in central Taiwan. *Gastroenterol J Taiwan*.1996; 13: 311.
8. Gnam N. A., & Khand, F. Gallstones and dietary risk factors: An epidemiologic investigation in southern Sindh, Pakistan. *RMJ*. 2013; 38: 361-78.
9. Boni L, Benevento A, Rovera F, et al. Infective complications in laparoscopic surgery. *Surg Infect / Larchnet*. 2006;7(Suppl 2):5109–11.
10. Juoo, Chaudhary R, Rani K, Chandran P, Kumari M, Garg P; Chemical analysis of biliary calculi in Haryana. *Ind J Surg*. 2001;63: 370-373.
11. Khan.,Khand, F. D., Bhangwer, M. I., & Leghari, M. H. Surgical incidence of cholelithiasis in hyderabad and adjoining areas (Pakistan). *Pak J Med Sci*. 2004; 20: 13-17.

Source of support: Nil

Conflict of interest: None declared

This work is licensed under CC BY: *Creative Commons Attribution 3.0 License*.